

What is claimed is:

1. A semiconductor integrated circuit comprising:
 - a time-constant variable bandpass filter which extracts a signal attributable to wobble from a signal outputted from a pickup circuit for scanning a surface of a recording medium formed with a track having in a surface thereof the wobble to thereby read a signal;
 - a digitizing circuit which digitizes a wobble signal having passed through the bandpass filter; and
 - a filter frequency control circuit which generates a control signal for controlling a frequency characteristic of the bandpass filter in accordance with the frequency of the wobble signal having passed through the bandpass filter,wherein the filter frequency control circuit includes,
 - a lowpass filter for eliminating harmonic components of a signal outputted from the digitizing circuit,
 - a dummy filter identical in configuration to the bandpass filter,
 - a phase comparator which detects a difference in phase between a signal having passed through the dummy filter and a signal having no passed therethrough, and
 - a control signal generator which generates a frequency control signal for controlling an intermediate

frequency of the bandpass filter according to the phase difference on the basis of a signal outputted from the phase comparator, and

wherein the intermediate frequency of the dummy filter and the cutoff frequency of the lowpass filter are controlled in conjunction with the intermediate frequency of the bandpass filter on the basis of the frequency control signal.

2. A semiconductor integrated circuit according to claim 1, further comprising:

a bypass path which supplies the signal outputted from the digitizing circuit to the dummy filter not through the lowpass filter,

switching means which causes any of the signal from the bypass path and the signal having passes through the lowpass filter to selectively pass therethrough, and

a control circuit which detects the amplitude of the signal having passed through the lowpass filter, and controls the switching circuit and supplies the signal having passed through the bypass path to the dummy filter when the amplitude is less than or equal to a predetermined level.

3. A semiconductor integrated circuit according to claim 1, wherein the lowpass filter and the dummy filter are continuous filters.

4. A semiconductor integrated circuit according to claim 3, wherein the lowpass filter and the dummy filter are secondary or more active filters.

5. A semiconductor integrated circuit according to claim 1, further comprising:

a D/A converter which D/A-converts a command value for designating the intermediate frequency of the bandpass filter, and

second switching means which causes either a signal outputted from the D/A converter or the control signal outputted from the control signal generator to selectively pass therethrough,

wherein the second switching means causes the control signal outputted from the control signal generator to pass therethrough in a first mode and causes the output signal of the D/A converter to pass therethrough in a second mode.

6. A semiconductor integrated circuit according to claim 1, further comprising:

a frequency divider which divides a signal prior to being transmitted through the lowpass filter.

7. A medium record playback device comprising:

a pickup circuit which scans a surface of a

recording medium formed with a track having in a surface thereof wobble to thereby read a signal;

medium driving means which rotatably drives the recording medium;

a semiconductor integrated circuit described in claims 1; and

a signal processing circuit which supplies either a digitized wobble signal outputted from the semiconductor integrated circuit or a clock signal having a predetermined frequency to a frequency follow-up circuit.

8. A medium record playback device according to claim 7, wherein the semiconductor integrated circuit includes an amplifier circuit which amplifies the signal read from the pickup circuit to a signal having predetermined amplitude, and a waveform equalization circuit which effects waveform equalization on the amplified signal, and the signal processing circuit has the function of reproducing an information signal in response to the signal processed by the waveform equalization circuit.

9. A medium record playback device according to claim 8, wherein the signal processing circuit is capable of generating a control signal for switching the second switching means and supplying it to the semiconductor integrated circuit.

10. A medium record playback device according to claim 7, further comprising:

a phase locked loop circuit which generates a clock signal defined as the reference from the digitized wobble signal outputted from the semiconductor integrated circuit.

11. A medium record playback device according to claim 7, wherein the semiconductor integrated circuit includes a signal generator which generates a servo control detection signal for generating a signal indicative of the state of a pickup, based on the signal from the pickup circuit, and the signal processing circuit has the function of generating a control signal for servo-controlling an actuator of the pickup in response to the signal generated by the signal generator.